



Executive Summary: Global electronic retailer dataset.

***Overview:**

This data comprises diverse parameters of a fictitious global electronics retailer, including tables containing information about transactions, products, customers, stores, and currency exchange rates, for a period of 6 years in different countries, states, and cities.

I conducted some analysis on it to gain insights and recommendations into some of the sales operations and study ways of enhancing the services based on certain scopes across several dimensions. Below are the scopes under which this analysis has been done:

***Scope:**

- Customer Analysis.
- Financial Analysis.
- Sales Quantity and Volume.
- Product Category Analysis.
- Channel Analysis.
- Geographic Analysis.
- Time Based Analysis.

***Key Findings:**

1. Revenue and Profit Distribution:

- **Total Revenue:** \$55.35M with a profit of \$32.43M.
- **Top-performing Countries:** The United States led with \$23.76M in revenue, followed by Canada (\$4.75M) and Germany (\$3.74M).
- **Revenue by Store Type:** In-store sales dominated with \$43.92M compared to \$11.43M from online sales.
- **Product Categories:** Computers generated the highest revenue (\$19M), followed by Home Appliances (\$11M).

2.Customer and Product Insights:

- **Top Customers:** Matthew Flemming was the highest spender with \$61,871.70, followed by Roy Le and Karen Jones.
- **Top Brands:** Adventure Works and Contoso were the leading brands, contributing significantly to revenue and sales volume.

- **Top Products:** High-revenue products include the "Adventure Works 52" LCD HDTV X590 Black" and various desktop PCs, particularly from the Adventure Works and Wide World Importers brands.

3. Geographical and Temporal Analysis:

- **Revenue by Country:** The US market was the most lucrative, followed by Canada, while European markets like Germany and the UK also showed strong performance.
- **Monthly & Quarterly & Yearly Trends:**

***Monthly Trends:

The data shows significant fluctuations in both online and in-store orders throughout the year, with a clear peak in December driven by holiday shopping. In contrast, March and April exhibit lower sales, indicating a post-holiday slowdown.

***Quarterly Trends:

Q4 consistently emerges as the most profitable period, with substantial increases in revenue and order volume, highlighting the impact of holiday sales. Q1, however, tends to be slower, reflecting the typical post-holiday dip.

***Yearly Trends:

Yearly analysis reveals an upward trend in online revenue, peaking in 2019 at 7.08K, followed by a decline likely due to market changes. In-store sales peaked the same year but saw a drop in 2020 and 2021, possibly due to the pandemic. This underscores the need to focus on online sales to meet shifting consumer preferences.

4. Operational Efficiency:

- **Average Order Value (AOV):** AOV was slightly higher in-store (\$2.12K) compared to online (\$2.05K).
- **Delivery Duration:** Delivery times showed variability across years, highlighting potential areas for improving supply chain efficiency.

*Recommendations:

1. Market Expansion:

- Increase focus on the US market given its dominance in revenue. Consider targeted marketing and inventory optimization for high-performing states like California and New York.
- Explore opportunities to grow in underperforming but potential-rich markets such as France and Italy.

2. Product Strategy:

- Expand the product lines of top-performing brands like Adventure Works and Contoso, possibly through exclusive online deals or in-store promotions.
- Leverage the success of high-demand products like desktops and LCD HDTVs by introducing newer models or bundling options.

3. Customer Segmentation:

- Implement personalized marketing strategies for top-spending customers to enhance loyalty and increase repeat purchases.
- Address the near-equal gender distribution by tailoring campaigns to better cater to female customers, potentially focusing on product categories with higher female interest.

4. **Channel Optimization:**

- While in-store sales lead, there's significant potential to boost online sales through improved user experience, exclusive online products, and targeted digital marketing campaigns.
- Streamline delivery operations to reduce variability in delivery times, enhancing customer satisfaction and reducing logistics costs.

Github: <https://github.com/HalimaMokhtari>

LinkedIn: <https://www.linkedin.com/in/mokhtarihalima/>